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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Ian MacLean

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Ira S. Matsil
Slater & Matsil, L.L.P.
Suite 1000
17950 Preston Road
Dallas, TX 75252

EXAMINER

SWARTZ, JAMIE H

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/027,777	Applicant(s) MACLEAN ET AL.	
	Examiner JAMIE H. SWARTZ	Art Unit 3694	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 December 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Status

1. This non-final office action is responsive to applicant's amendment filed November 06, 2007.

Claims 1-20 are pending.

Response to Arguments

2. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 3-9, 11-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haumont (US 20030027554 A1) in view of Alloune et al. (US 6615034 B1).
5. Regarding claim 1, Haumont teaches a method of providing content-based billing to a prepaid subscriber (¶¶ 18-20). Haumont teaches initiating information exchange

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between a first Serving General Packet Radio Service Support Node (SGSN) and Server Control Point (SCP) regarding the prepaid subscriber (§ 32, 38, 52-61, 19). Haumont teaches providing volume limit threshold data to the first SGSN (§ 28, 32-40). Haumont teaches forwarding the volume limit threshold data to a Gateway GPRS Support Node (GGSN) (§ 17, 80). Haumont teaches transmitting the accumulated data count to the first SGSN if the accumulated data count reaches the volume limit threshold (abstract, § 15, 28, 32-34, 80-81). Haumont teaches providing the accumulated data count to the SCP (§ 32-34, 40, 42, 57). Haumont teaches billing (§ 18-20) does not specifically teach accumulating a billable data count. However, Alloune teaches accumulating a billable data count relating to a profile of a prepaid subscriber (col. 2, line 15 - col. 8, line 50). Haumont teaches services accessible via a subscription in a telecommunication system, and particularly to a subscription having an account and a predetermined limit. Alloune teaches communication billing system that provides interrelated processing of wireless service events. It would have obvious to one of ordinary skill in the art at the time of the invention to modify Haumont to include the details of accumulating a billable data count. The majority of telecommunication systems bill based on units or segments of time. In order to bill a customer it is a requirement that the telecommunications company accumulate the units or segments into a billable data count.

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6. Regarding claim 3, Haumont teaches transmitting a new volume limit threshold to the first SGSN and forwarding the new volume limit threshold to the GGSN (§§ 32-35, 40-42, 57-63).

7. Regarding claim 4, Haumont teaches providing the first SGSN with information to release or terminate communications with the PDP a Packet Data Provider (PDP) (§§ 18, 20, 32-33, 44-45, 51, 54-56, 61).

8. Regarding claim 5, Haumont teaches wherein the GGSN does not accumulate billable count for selected types of data in accordance with the subscriber profile (§§ 18, 24-25, 29-39).

9. Regarding claim 6, Haumont teaches wherein the step of accumulating billable data count comprises the step of accumulating different types of data counts for different billable data rates (§§ 18, 24-25, 29-43, 62).

10. Regarding claim 7, Haumont teaches wherein a first type of data is provided at no cost to the subscriber and does not accumulate a data count at the GGSN, a second type of data is accumulated at a first rate at the GGSN, a third type of data accumulates at a rate lower than the first rate at the GGSN, and a fourth type of data accumulates at a rate greater than the first rate at the GGSN (§§ 18, 24-25, 29-62, 80).

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11. Regarding claim 8, Haumont teaches wherein the step of providing volume limit threshold data is provided from the SCP (§§ 25, 32-35, 40-42, 57-63).

12. Regarding claim 9, Haumont teaches wherein the step of forwarding the volume limit threshold data is forwarded from the first SGSN (§§ 32-44, 80).

13. Regarding claim 11, Haumont teaches the step of accumulating a billable data count comprises accumulating the billable data count by the GGSN (§§ 17-20, 53-64).

14. Regarding claim 12, Haumont teaches wherein the information to release or terminate is provided from the SCP (§§ 25-27, 31-53). Haumont includes each stage including termination.

15. Regarding claim 13, Haumont teaches contacting the first SGSN by a second SGSN indicating a mobility transfer (§§ 17-20, 75, 80). Haumont teaches transmitting the accumulated data count from the GGSN to the first SGSN (§§ 17-20, 54-55). Haumont teaches providing the accumulated data count to the SCP (§§ 25-27, 31). Haumont teaches terminating communications between the SCP and the first SGSN with respect to the prepaid subscriber (§§ 36-40, 42-61). Haumont teaches establishing communications between the second SGSN and the SCP with respect to the prepaid subscriber (§§ 36-40, 42-61). Haumont teaches providing volume limit threshold data from the SCP to the second SGSN (§§ 32-40). Haumont teaches forwarding the volume

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limited threshold data from the second SGSN to the GGSN (§§50-61). Haumont teaches transmitting the accumulated data count from the GGSN to the second SGSN (§§ 20, 17, abstract, §§ 15, 28, 32-34, 80-81). Haumont teaches providing the accumulated data count to the SCP (abstract, §§ 15, 28, 32-34, 40-42, 57). Haumont teaches billing (§§ 18-20) but does not specifically teach accumulating a billable data count. However, Alloune teaches accumulating a billable data count at the GGSN according to the prepaid subscriber profile (col. 2, line 15 - col. 8, line 50). Haumont teaches services accessible via a subscription in a telecommunication system, and particularly to a subscription having an account and a predetermined limit. Alloune teaches communication billing system that provides interrelated processing of wireless service events. It would have obvious to one of ordinary skill in the art at the time of the invention to modify Haumont to include the details of accumulating a billable data count. The majority of telecommunication systems bill based on units or segments of time. In order to bill a customer it is a requirement that the telecommunications company accumulate the units or segments into a billable data count.

16. Regarding claim 14, Haumont teaches transmitting the accumulated data count prior to attainment of the volume limit threshold (§§ 17, 81).

17. Regarding claim 15, Haumont teaches transmitting a new volume limit threshold from the SCP to the second SGSN and forwarding the new volume limit threshold from the second SGSN to the GGSN (§§ 32-35, 40-42, 57-63).

18. Regarding claim 16, Haumont teaches providing the second SGSN with information to release or terminate communications with the PDP a Packet Data Provider (PDP) (§ 18, 20, 32-33, 44-45, 51, 54-56, 61).

19. Regarding claim 17, Haumont teaches wherein the GGSN does not accumulate billable count for selected types of data in accordance with the subscriber profile (§ 18, 24-25, 29-39).

20. Claims 2, 10, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haumont (US 20030027554 A1) in view of Alloune et al. (US 6615034 B1) as shown above in further view of Official Notice.

21. Regarding claim 2, Haumont teaches transmitting the accumulated data count if an exchange of data between the BSC/RNC a Base Station Controller/Radio Network Controller (BSC/RNC) and the first SGSN is interrupted before the volume limit threshold is reached (§ 17, 81). Calls are often stopped or disconnected well before the volume limit threshold is reached. A call that would not be disconnected before the volume limit threshold would be a call that would consume the volume in its entirety. Calls are terminated all the time. Official Notice is taken that UMTS has RNC. Official Notice is taken that a BSC is part of a BSS.

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22. Regarding claim 10, Haumont teaches the step of exchanging data between a Base Station Controller (BSC), the first SGSN, and the GGSN (§ 17, 19). Official Notice is taken that the BSC is a part of the BSS.

23. Regarding claim 20, Haumont teaches exchanging data between a second BSC, the second SGSN and the GGSN (§ 17, 19). Official Notice is taken that the BSC is a part of the BSS.

24. Claims 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haumont (US 20030027554 A1) in view of Alloune et al. (US 6615034 B1) as shown above in further view of Hasan et al. (US 6707813 B1).

25. Regarding claim 18, Haumont teaches transiting accumulated data count, providing the accumulated data count, terminated communications, establishing communications, providing volume limit, and forwarding said volume limit. Alloune teaches accumulating billable data. Haumont and Alloune combined do not specifically teach where the second SGSN is established prior to terminating the first SGSN because wireless voice communication works off of towers to transmit the signal. However, Hasan teaches wherein communication between the second SGSN and the SCP is established prior to termination of communication between the first SGSN and SCP (col. 1, line 62 – col. 7, line 35). Haumont teaches services accessible via a subscription in a telecommunication system, and particularly to a subscription having an

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account and a predetermined limit. Alloune teaches communication billing system that provides interrelated processing of wireless service events. Hasan teaches a radio telecommunication systems and a method of call control to minimize delays in launching multimedia or voice calls in a packet-switched radio telecommunications network. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Haumont to include the specifics of where the second SGSN is established prior to terminating the first SGSN because wireless voice communication works off of towers to transmit the signal. The signal of an individual tower is not infinite, so it requires the use of multiple towers to be sure there aren't interruptions in use. All cellular communication requires the use of more than one tower. It is vital when using wireless voice communication to have seamless communication. If the second SGSN is not established prior to the termination of the first SGSN an interruption in the conversation will occur, causing a brief silence or a force termination of the call. From a customer service aspect, force termination or interruptions are frowned upon.

26. Regarding claim 19, Haumont teaches transiting accumulated data count, providing the accumulated data count, terminated communications, establishing communications, providing volume limit, and forwarding said volume limit. Alloune teaches accumulating billable data. Haumont and Alloune combined do not specifically teach transferring information between the first and second SGSN. However, Hasan teaches exchanging information between the first SGSN and the second SGSN (col. 1, line 62 – col. 7, line 35). Haumont teaches services accessible via a subscription in a

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telecommunication system, and particularly to a subscription having an account and a predetermined limit. Alloune teaches communication billing system that provides interrelated processing of wireless service events. Hasan teaches a radio telecommunication systems and a method of call control to minimize delays in launching multimedia or voice calls in a packet-switched radio telecommunications network. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Haumont to include the specifics of transferring information between the first and second SGSN. This is to not interrupt the communication when going from the first to the second SGSN to accomplish this would require information relating to the current communication being transferred.

27. Examiner's Note: The Examiner has cited particular columns and line numbers in the references as applied to the claims for the convenience of the applicant.

Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant, in preparing the responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the examiner.

Conclusion

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMIE H. SWARTZ whose telephone number is (571)272-7363. The examiner can normally be reached on 8:00am-4:30pm Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Trammell can be reached on (571) 272-6712. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J. H. S./

Examiner, Art Unit 3694

/James P Trammell/

Supervisory Patent Examiner, Art Unit 3694